



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/914,839	09/04/2001	Helge Reymann	3286-0169P	4404
30596	7590	01/27/2004	EXAMINER CHEN, BRET P	
HARNES, DICKEY & PIERCE, P.L.C. P.O.BOX 8910 RESTON, VA 20195			ART UNIT 1762	PAPER NUMBER

DATE MAILED: 01/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/914,839

Applicant(s)

REYMANN, HELGE

Examiner

B. Chen

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1762

DETAILED ACTION

Claims 1-43 are pending in this application, which is an RCE of Serial Number 09/914839. The amendment dated 10/30/03, previously unentered, has been entered in the application.

Claim Rejections - 35 USC § 112

The following is a quotation of the **first paragraph** of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In claim 1 line 6, the phrase "the gas turbine blade being permanent in a vacuum" is deemed new matter as there appears to be no support in the original specification for such a limitation. The same limitations apply to lines 13-14. The same issue applies to claims 9, 33, and 44.

In claim 1 lines 8-10, the phrase "the anti-oxidation coating causes the temperature of the gas turbine blade to drop" is deemed new matter as this limitation does not appear in the original specification. The same issue applies to claim 44.

Art Unit: 1762

The following is a quotation of the **second paragraph** of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-43 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 line 6, the phrase "the gas turbine blade being permanent in a vacuum" is vague and confusing. The limitation as presently amended implies that the gas turbine blade always remains in the vacuum and never leaves it. If that were the case, the gas turbine blade could not be used in the preferred application as noted in the last full paragraph on p.2 of the applicant's specification. Appropriate amendments are requested. The same issue applies to claims 9, 33, and 44.

In claim 1 lines 8-10, the phrase "the anti-oxidation coating causes the temperature of the gas turbine blade to drop" is vague and confusing as to how a coating causes a temperature to drop. It is not clear how a coating can cause the temperature fluctuate. The same issue applies to claim 44.

Claim 3 appears to be redundant to amended independent claim 1 and should be deleted. As a result, the dependency of claims 4 and 6 should be amended as well.

Claim 30 is redundant to claim 21. It should be deleted or "postheat" should be amended to read --preheating--.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goedjen et al. (6,306,515). Goedjen discloses a method and apparatus for forming a multilayer coating system for use in a gas turbine (col.1 lines 13-16). Specifically, the reference teaches of depositing a high density metallic bond coating layer (MCrAlY) onto a substrate, which can be a blade, in a vacuum (col.2 lines 10-38). This layer is then annealed by insitu oxidation (col.3 lines 44-58). It is noted that the substrate never leaves the chamber during coating and oxidation. However, the reference fails to teach transferring a coated turbine blade from a coating region to a postheat region.

It is noted that the reference clearly teaches of coating the turbine blade followed by a subsequent annealing step. Both steps are done in a vacuum chamber. One skilled in the art would reasonably expect that the elimination of a transfer step would produce a similar product at a lower cost as there is no need for a separate part of the chamber as well as a transfer mechanism. Hence, it would have been obvious to one skilled in the art to eliminate the transfer step with the expectation of obtaining a similar product at a reduced cost.

In claims 2-8, the applicant requires a specific temperature, transferring procedures, and materials. It would have been obvious to one having ordinary skill in the art to have determined

Art Unit: 1762

the optimum value of a cause effective variable through routine experimentation in the absence of a showing of criticality.

In claims 9-16, the applicant claims a specific apparatus. It is noted that both reference teach the use of a coating chamber and a postheat chamber in vacuum. However, the references fail to teach a vacuum plant. This issue has been addressed above.

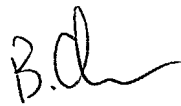
The limitations of claims 17-44 have been addressed above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to B. Chen whose telephone number is (571) 272-1417. The examiner can normally be reached on 7:30am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (571) 272-1415. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Bc
1/15/04


BRET CHEN
PRIMARY EXAMINER